



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,366	04/08/2004	Paul Waterhouse	DAMAGEALERTTAG	8833
53556	7590	10/07/2005	EXAMINER	
OPPEDAHL & LARSON LLP- VAI P.O. BOX 5068 DILLON, CO 80435-5068			GOINS, DAVETTA WOODS	
			ART UNIT	PAPER NUMBER
			2632	
DATE MAILED: 10/07/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/820,366

Applicant(s)

WATERHOUSE ET AL.

Examiner

Davetta W. Goins

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-49 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/8/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Regarding claims 1, 7, 8, 10, 28, 29, 30, , 34, 35, and 43, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

### ***Allowable Subject Matter***

3. Claims 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2632

5. Claims 1, 3, 12-26, 33, 34, 36-39, 40, 42-45-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Twitchell, Jr. (US Pat. 6,745,027 B2).

In reference to claim claims 1, 14, 15, 20-25, 39, 40, 43, 45-49, Twitchell, Jr. (Twitchell) discloses the claimed system for detection and tracking of inanimate and animate objects, the system comprising a) a low radio frequency tag carried by each of the objects, the tag comprising a tag antenna operable at a low radio frequency not exceeding 1 megahertz, a transceiver operatively connected to the antenna, the transceiver being operable to transmit and receive data signals at the low radio frequency, a data storage device operable to store data comprising identification data for identifying the detection tag, a programmed data processor operable to process data received from the transceiver and the data storage device and to send data to cause the transceiver to emit an identification signal based upon the identification data stored in the data storage device, and an energy source for activating the transceiver and the data processor; b) at least one field antenna disposed at an orientation and within a distance from each object that permits effective communication therewith at the low radio frequency; c) a reader in operative communication with the field antenna, the reader being operable to receive data signals from the low frequency tags; d) a transmitter in operative communication with the field antenna, the transmitter being operable to send data signals to the low frequency tags; and e) a central data processor (e.g. server) in operative communication with the reader and transmitter, which is met by shipping environment 100 including a warehouse 104. With reference to FIG. 1, an LPRF unit 110 is attached to each pallet 120 in the shipping environment 100. An actual implementation would involve thousands of pallets and LPRFs. For clarity,

Art Unit: 2632

only three pallets and LPRFs are shown in FIG. 1. Optionally, at least some of the LPRF units 110 are associated with and assume a class designation representative of one or more radio frequency transponders 130 which are in turn associated with packages 134. The RFTs 130 may be of one of several types. Passive RFTs are devices that collect RF energy inductively and selectively respond, including sending information that is stored on the RFT. They may be viewed as selective reflectors of incident RF signals. Semi-passive and semi-active RFTs are devices that use a battery to power some portion of the circuit to either detect from reader or transmit to the reader. Active RFTs are devices that use a battery to detect and transmit information to or from the reader. RFTs 130 can be read-write or read-only, depending on the requirements of the particular asset tracking application. LPRFs 110 acquire class designation by reading RFTs 130 nearest them, then storing class designation and other profile information in non-volatile read/write memory (col. 5, lines 40-67).

In reference to claims 3, 12, 13, 16-19, 33, 34, 36-38, 42, 44, Twitchell discloses the claimed field antenna, the reader, and the transmitter being combined into a unitary handheld device, which is met by HIM 170 (col. 6, lines 19-41).

In reference to claim 26, which is met by the sensor further comprising a GPS detector, which is met by a GPS receiver for determining geographic location of the vehicle (col. 6, lines 19-41).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

Art Unit: 2632

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-5 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Twitchell, Jr.

In reference to claims 2, 4, 31, although Twitchell does not specifically disclose the claimed system as including a low radio frequency not exceeding 300 kilohertz, he does disclose a system including class designation representative of one or more radio frequency transponders 130 (also known as radio-frequency identification tags, RFID Tags, or RFTs) (col. 5, lines 40-67). Since Twitchell comprises a system that includes handheld devices HIM 170 to transmit low frequency signals to each of the tags located in the warehouse, it would have been obvious to one of ordinary skill in the art at the time of the invention to set the frequency to not exceed a specific amount to reduce the chance of interference as well as ensure that the signal that's received is an indication as to the amount of shipping within the warehouse.

In reference to claim 5, Twitchell discloses the claimed objects and the field antenna being disposed in a repository selected from a truck, a warehouse, which is met by a warehouse 104 and vehicle (truck) 184 (col. 6, lines 19-41; Figure 1).

8. Claims 7-11, 28-30, 32, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Twitchell, Jr. in view of Carrender (US Pat. 6,927,687 B2).

Art Unit: 2632

In reference to claims 7-10, 28-30, 32, 35, although Twitchell does not disclose the claimed tag including an operable to generate a status signal upon sensing a condition (e.g. temperature change, shock, dampness) experienced by an object that carries the detection tag and (ii) at least one indicator device (e.g. colored LED, audible tone generator) which is automatically operable upon generation of the status signal, he does disclose a plurality of transponders 130, located on each package, 134. The tags are capable of transmitting and receiving information to an MLG 180, on a vehicle, to transmit stored information pertaining to the tag's id, to a network interface module 140 (col. 5, lines 40-67; col. 6, lines 1-50). Carrender discloses the RFID tag is configured to determine elapsed time and the change in temperature over the elapsed time to enable calculation of average temperature. One approach is to use comparative voltages to measure elapsed time and change in temperature, preferably without using a source of power (col. 4, lines 9-45). Since Twitchell includes a plurality of RFID tags that are to output information related to the package to a remote monitoring system, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of including a sensor on the tag for sensing a condition and giving an output, as disclosed by Carrender, with the system of Twitchell, to give current information about the each particular package that may give indication as to whether the product inside is good.

In reference to claim 11, although Twitchell doesn't specifically disclose the claimed transceiver being operable to automatically transmit the temporal history at the low radio frequency upon receipt by the transceiver of a data signal that corresponds to the

Art Unit: 2632

identification data stored at the data storage device, he does disclose a system including class designation representative of one or more radio frequency transponders 130 (also known as radio-frequency identification tags, RFID Tags, or RFTs) (col. 5, lines 40-67). Since Twitchell comprises a system that includes handheld devices HIM 170 to transmit low frequency signals to each of the tags located in the warehouse, it would have been obvious to one of ordinary skill in the art at the time of the invention to set the frequency to not exceed a specific amount to reduce the chance of interference as well as ensure that the signal that's received is an indication as to the amount of shipping within the warehouse.

9. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure as follows. Denekamp et al. (US Pat. 4,750,197), Schipper et al. (US Pat. 5,969,595), Boyd et al. (US Pat. 6,127,976), Kruger (US Pat. 6,236,911 B1), Reynolds et al. (US Pat. 6,318,636 B1) and Nicholson (US Pat. 6,724,308 B2), which disclose RFID tracking systems.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davetta W. Goins whose telephone number is 571-272-2957.

The examiner can normally be reached on Mon-Fri with every other Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2632

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



D.W.G.

October 2, 2005

Davetta W. Goins  
Primary Examiner  
Art Unit 2632